

# LUXACRYL®-ST strong mat, red 1603

## Technical Data Sheet

**LUXACRYL®-ST strong mat** is standard cast acrylic (PMMA) with good weatherability and heavy mat finish on one surface.

**Applications:** due to the heavy mat finish on one surfaces, **LUXACRYL®-ST strong mat** qualifies especially für large-scale display windows (LED etc.) and for use in laminated diffusion filters (see Laminates).

**Sheet Size:** approx. 2000 x 1200 mm in thickness 3.0 mm, red (color id 1603), thickness tolerance  $\pm 15\%$ . Different colors and thicknesses available on demand. ttv also supplies cut to size or machined to customer's drawings (including silk screen printing and adhesive).

TECHNICAL DATA	TEST METHOD	UNIT	VALUE*
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### PHYSICAL

Density	ISO 1183	g/cm <sup>3</sup>	1,19
Pencil Hardness	ASTM D-3363		ca. 2 – 3H
Water Absorption	ISO 62/1	%	0,5

### OPTICAL

Transmission	DIN 5036	%	ca. 60
Refractive Index	ISO489/A		1,49

### THERMAL

Vicat Softening Temperature	ISO 306	°C	100
Max. Continuous Temperature		°C	80
Heat Distortion Temperature	ISO 75	°C	105
Coeff. of Thermal Expansion	DIN 53752-A	1/°C	$7 \times 10^{-5}$
Coeff. of Thermal Conductivity	DIN 52612	W/mK	0,19

### MECHANISCH

Rupture Strength (tensile)	ISO 527/B	MPa	70
Rupture strength (flexural)	ISO 178	MPa	110
Elongation	ISO 527/B	%	4
E-Module	ISO 527B	MPa	3000
Impact strength	ISO 180/1 A	kJ/m <sup>2</sup>	1,6

### CHEMICAL

“+” = no change, “x” = conditionally resistant, “-” = not resistant

- Acetone	- Alcohol (96%)	+ Dilute Alcohol (50%)	- Amine
- Aniline	x Ether	- Aromatic Hydrocarbon	+ Ethylene glycol
+ Benzine	- Benzene	x Bromine Vapors	x Chlorine Vapors
- Chlorinated Hydrocarbon	- Ester	x Fluorine Vapors	x Formaldehyde (10-40%)
+ Glycerine	+ Factory fume	+ Hexane	- Ketones
- Paint thinner	+ Lanolin	+ Bases (10%)	x Bases (20%)
+ Methylamine	+ Mineral Oil	+ Chlorinated Paraffin	+ Petroleum Ether
- Phenole	+ Salt Solutions	+ Acids (20%)	- Carbon Tetrachloride
- Fuel mixture	+ Water	+ Xylene	

\* Values provided cannot be guaranteed in your application due to circumstances beyond our control.



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